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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/637,109	08/08/2003	Paul Steve Chirgott	A01413	5010
21898	7590	06/15/2006		EXAMINER
ROHM AND HAAS COMPANY PATENT DEPARTMENT 100 INDEPENDENCE MALL WEST PHILADELPHIA, PA 19106-2399			CHEUNG, WILLIAM K	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/637,109	CHIRGOTT, PAUL STEVE	
	<b>Examiner</b> William K. Cheung	<b>Art Unit</b> 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) Responsive to communication(s) filed on 14 April 2004.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-10 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-10 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 041404 011604

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: IDS 123103

## DETAILED ACTION

### ***Double Patenting***

1. At the time of this office action, the related US 10/637,110 had been abandoned.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoyama et al. (US 6,281,297).

*The invention of claims 1-2 relates to a **polymeric composition** comprising at least one **population of polymeric particles**, wherein said polymeric particles comprise a **rubber-containing portion**, and wherein said rubber-containing portion comprises:*

- a. less than 1 weight percent an **isobutylene** polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and*
- b. at least one of the following:*
  - 1) an **organosiloxane polymer** component,*
  - 2) a **vinyl polymer** component, or*

3) *an organosiloxane polymer component, and a vinyl polymer component.*

Aoyama et al. (col. 8, line 1 to col. 15, line 32) in working examples and comparative samples disclose polymeric compositions comprising an organosiloxane polymer, and a vinyl polymer. Since Aoyama et al. (col. 11, line 1-23) clearly disclose a sample that does not contain a isobutylene polymer, Aoyama et al. contain all the limitation of claims 1-2, claims 1-2 are anticipated.

4. Claims 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoyama et al. (US 6,281,297).

*The invention of claim 3-5 relates to a polymeric composition comprising;*

*a. at least one population of polymeric particles, wherein said polymeric particles comprise a rubber-containing portion, and wherein said rubber-containing portion comprises:*

*1) at least 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and*

*2) at least one of the following:*

*a) an organosiloxane polymer component,*

*b) a vinyl polymer component, or*

*c) an organosiloxane polymer component, and a vinyl polymer component;*  
*and*

*b. at least 1 weight percent of a processing oil component.*

*The invention of claim 6 relates to a polymeric composition comprising;*

- a. at least one population of polymeric particles, wherein said polymeric particles comprise a rubber-containing portion, and wherein said rubber-containing portion comprises;*
  - 1) at least 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and*
  - 2) at least one of the following:*
    - a) an organosiloxane polymer component,*
    - b) a vinyl polymer component, or*
    - c) an organosiloxane polymer component, and a vinyl polymer component; and*
- b. at least 2 weight percent of a processing aid component.*

Aoyama et al. (col. 8, line 1 to col. 15, line 32) in working examples and comparative samples disclose polymeric compositions comprising an organosiloxane polymer, and a vinyl polymer. Particularly, for examples 1-4 and Table 1 (col. 8-10), Aoyama et al. clearly disclose polymeric samples comprising a isobutylene rubber which meets the requirements of claims 3-6.

Regarding the claimed additives, Aoyama et al. (col. 7, line 26-42) disclose various additives such as plasticizers as processing aids. Regarding the claimed "oil", the examiner has a reasonable basis to believe that some of the processing aid additives as disclosed in Aoyama et al. are inherently in the oil form. For example, even Aoyama et al. (col. 3, line 28) disclose low molecular weight polyisobutylene in the oil

form. Therefore, the examiner believes that the claimed "oil" feature is inherently possessed in Aoyama et al. Claims 3-6 are anticipated.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating

obviousness or nonobviousness.

6. Claims 7-10 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Aoyama et al. (US 6,281,297).

*The invention of claim 7 relates to a **polymeric composition** comprising;*

**a. a population of polymeric particles, wherein said polymeric particles comprise void-containing rubber portion, wherein the volumetric proportion of the voids defined therein ranges from 1 to 80 percent, and wherein said void-containing rubber portion comprises:**

- 1) at least 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the respective first and second populations polymeric particle's rubber-containing portion, and**
- 2) at least one of the following:**
  - a) an organosiloxane polymer component,**
  - b) a vinyl polymer component, or**
  - c) an organosiloxane polymer component, and a vinyl polymer component.**

*The invention of claim 8 relates to a polymeric composition comprising a first and second population of polymeric particles,*

- a. wherein said first and second populations of polymeric particles comprise a rubber-containing portion,**
- b. wherein said rubber-containing portion of said first and second populations of polymeric particles each comprise;**

- 1) at least 1 weight percent an isobutylene polymer component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and**
- 2) at least one of the following:**
  - a) an organosiloxane polymer component,**
  - b) a vinyl polymer component, or**
  - c) an organosiloxane polymer component, and a vinyl polymer component; and**

wherein said **second population of polymeric particles** is characterized by at least one of the following:

- 1) the **rubber-containing portion of the second population of polymeric particles** has voids defined therein, and the volumetric proportion of the voids defined within the second population of polymeric particles is at least 20 percent greater than the volumetric proportion of voids defined within the first population of polymeric particles,
- 2) the **chemical composition of the second population of polymeric particles** is different from the chemical composition of the first population of polymeric particles,
- 3) the **mean particle diameter of the second population of polymeric particles** is at least 20 percent different from the mean particle size of the first population of polymeric particles, and
- 4) the **shape of the second population of polymeric particles** is different from the shape of the first population of polymeric particles.

The invention of claim 9 relates to a **plastic matrix system** comprising a plastic resin component and polymeric composition, wherein said polymeric composition comprises at least one **population of polymeric particles**, wherein said polymeric particles comprise a **rubber-containing portion**, and wherein said rubber-containing portion comprises;

- a. **less than 1 weight percent an isobutylene polymer** component, said weight percentage being based on the total weight of the polymeric particle's rubber-containing portion, and
- b. at least one of the following:

- 1) an **organosiloxane polymer component**,
- 2) a **vinyl polymer component**, or
- 3) an **organosiloxane polymer component**, and a **vinyl polymer component**.

*The invention of claim 10 relates to a **plastic matrix system** comprising a **plastic resin component** and **polymeric composition**, wherein said **polymeric composition** comprises;*

*a. at least a **first population of polymeric particles**, wherein said **polymeric particles** comprise a **rubber-containing portion**, and wherein said **rubber-containing portion** comprises;*

- 1) **at least 1 weight percent an isobutylene polymer component**, said weight percentage being based on the total weight of the **polymeric particle's rubber-containing portion**, and

*2) at least one of the following:*

- a) an **organosiloxane polymer component**,
- b) a **vinyl polymer component**, or
- c) an **organosiloxane polymer component**, and a **vinyl polymer component**; and

*b. at least one of the following:*

*1) at least 1 weight percent of a **processing oil component**,*

*2) at least 2 weight percent of a **processing aid component**,*

*3) the at least one **population of polymeric particles** comprise a **void- containing rubber portion**, wherein the **volumetric proportion of the voids defined therein ranges from 1 to 80 percent**, or*

*4) a second **population of polymeric particles** characterized by at least one of the following;*

- a) *the **rubber-containing portion of the second population of polymeric particles has voids defined therein**, and the **volumetric proportion of the voids defined within the second population of polymeric***

*particles is at least 20 percent greater than the volumetric proportion of voids defined within the first population of polymeric particles,*

*b) the chemical composition of the second population of polymeric particles is different from the chemical composition of the first population of polymeric particles,*

*c) the mean particle diameter of the second population of polymeric particles is at least 20 percent different from the mean particle size of the first population of polymeric particles, and*

*d) the shape of the second population of polymeric particles is different from the shape of the first population of polymeric particles.*

Aoyama et al. (col. 8, line 1 to col. 15, line 32) in working examples and comparative samples disclose polymeric compositions comprising an organosiloxane polymer, and a vinyl polymer. Particularly, for examples 1-4 and Table 1 (col. 8-10), Aoyama et al. clearly disclose polymeric samples comprising a isobutylene rubber which meets the requirements of claims 7-10.

Regarding the claimed additives, Aoyama et al. (col. 7, line 26-42) disclose various additives such as plasticizers as processing aids. Regarding the claimed "oil", the examiner has a reasonable basis to believe that some of the processing aid additives as disclosed in Aoyama et al. are inherently in the oil form. For example, even Aoyama et al. (col. 3, line 28) disclose low molecular weight polyisobutylene in the oil form. Therefore, the examiner believes that the claimed "oil" feature is inherently possessed in Aoyama et al. Claims 7-10 are anticipated.

Regarding the claimed "void" morphology, Aoyama et al. (col. 8, line 1 to col. 15, line 32) clearly disclose compositions and preparative methods that are substantially identical to the composition and methods disclosed in applicants' specification (page 24, last paragraph). Therefore, in view of substantially identical composition and processing methods of Aoyama et al. and claims 7-10 as claimed, the examiner has a reasonable basis to believe that the claimed "void" and other related morphology as claimed are inherently possessed in Aoyama et al. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); *In re Fitzgerald*, 205 USPQ 594 (CCPA 1980).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William K. Cheung, Ph. D.

Primary Examiner

**WILLIAM K. CHEUNG**  
**PRIMARY EXAMINER**

June 7, 2006